

TIME DISTRIBUTION OF THE MAIN BRAZILIAN MINERAL DEPOSITS

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The 194 main Brazilian mineral deposits were selected by their economic and prospective significance. Metallogenetic periods of the main genetic groups were defined. Low frequency of deposits were detected in periods: (1) that precede the beginning of juvenile crustal material accretion peak periods and/or, (2) of the cooling of rocks formed in every main Brazilian thermo-tectonic events. On the contrary, periods that coincide or that are subsequent to these peak periods seem to be fertile. The most important metallogenetic epoch was between 50 Ma and the Recent. It includes supergenic, residual and placer deposits. Brazilian's volcanogenic VMS, Mississippi Valley and orogenic gold-lode deposits have discordant ages compared with the same type of deposits in other countries, while deposits believed to be SEDEX have concordant ages. With the exception of Urucum, the primary iron and manganese ores of Brazilian deposits are Archean. Primary tin deposits from the States of Amazonas, Amapá and Goiás form a group with ages between 1500 and 2300 Ma, while tin deposits from the States of Rondônia and Mato Grosso formed between 1000 and 1600 Ma. Uranium deposits are very varied on their genetic model and ages. The most part of Brazilian deposits of phosphate, titanium, niobium, Rare Earths, diamond in kimberlites and of amethyst are of Mesozoic ages, and genetically related to the alkalic and basaltic magmatisms. Gemstone, talc and magnesite deposits are more frequent in the Brasiliano period. Gipsite, silvite and barite are in evaporites from Senonian to Aptian.